



Silver Line Gateway Alternatives Analysis

Public Meeting – September 18, 2013

Study Overview

GOAL: Identify a recommended alternative for extending Silver Line service to Chelsea and East Boston that will enhance mobility and economic development potential

Context:

- Corridor well aligned with MassDOT goals
- Leverage recent infrastructure investments

Public Meetings:

- March 2013 – Introduced study and project corridor
- May 2013 – Reviewed potential alternatives and solicited feedback
- June 2013 – Present initial analysis results, solicit feedback
- **September 2013 – Present recommended alternative**

Study Corridor

- Service would be new branch of Silver Line Waterfront service.
- Duplicates existing service at:
 - South Station
 - South Boston Transitway / Seaport District stations
- New connection to Blue Line at Airport Station
 - Does not serve Logan terminals
- Coughlin Bypass Road to Chelsea Street Bridge



Alternatives for Serving Chelsea

MassDOT developed and evaluated **three alternatives** based on input received at May public meeting and at other stakeholder meetings:

Alternative 1: Busway to Mystic Mall
(4 stations in Chelsea)

Alternative 2: Busway to Bellingham Square
(3 stations in Chelsea)

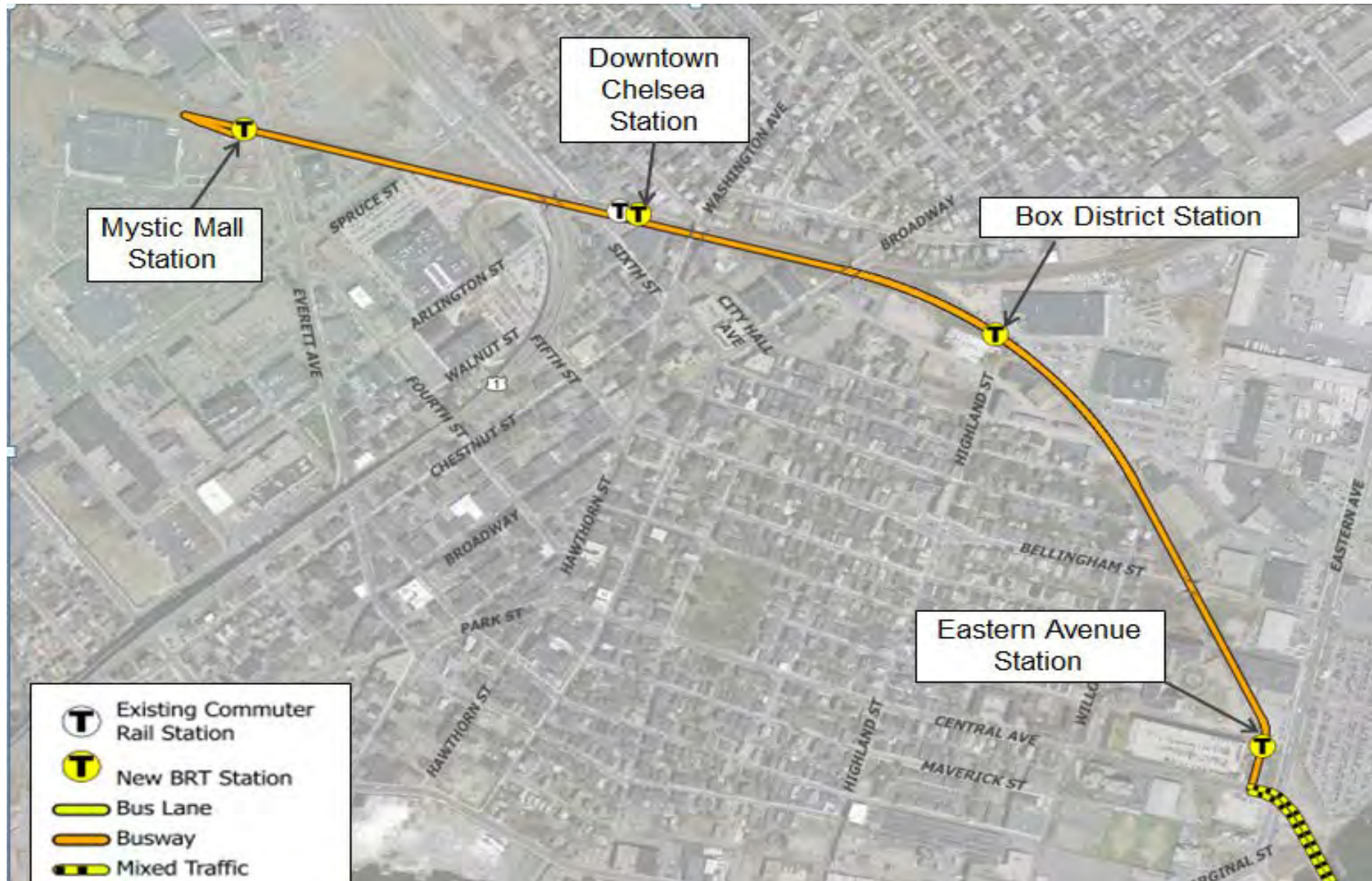
Alternative 3: On-Street to Everett Avenue
(4 stations in Chelsea)

Alternatives for Serving Chelsea

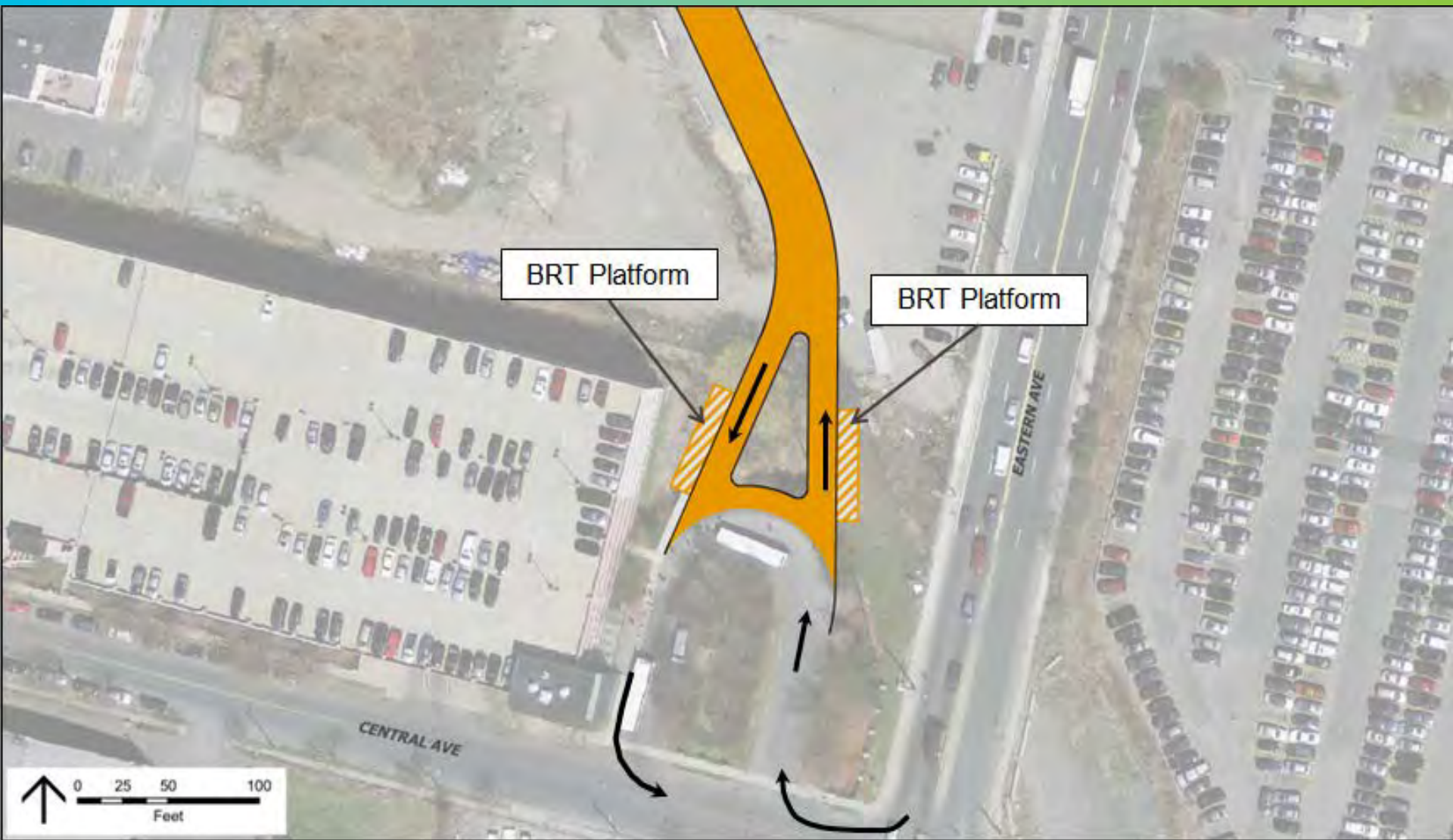
RECOMMENDED ALTERNATIVE:

Alternative 1: Busway to Mystic Mall (4 stations in Chelsea)

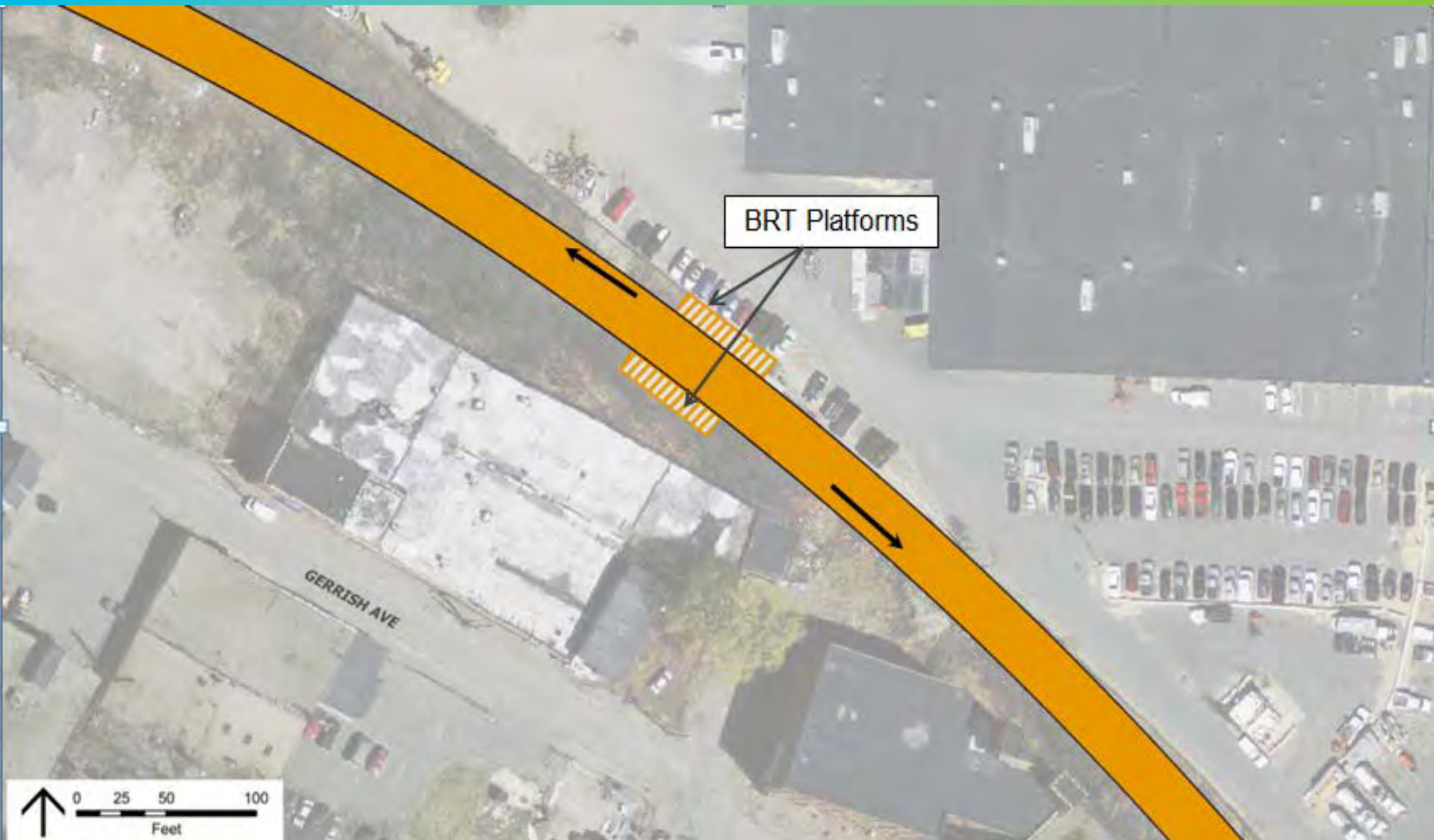
Busway to Mystic Mall



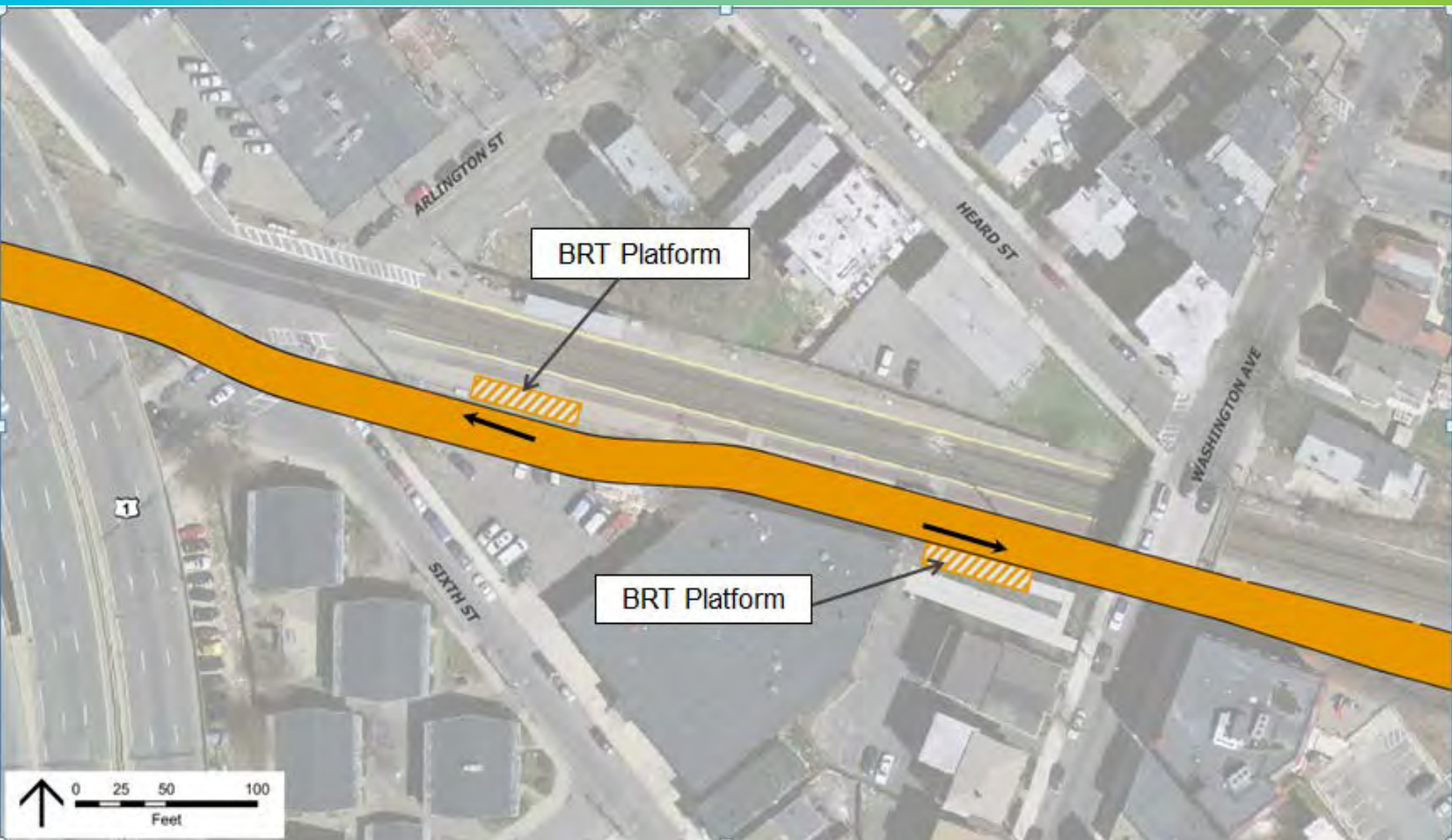
Station – Eastern Avenue



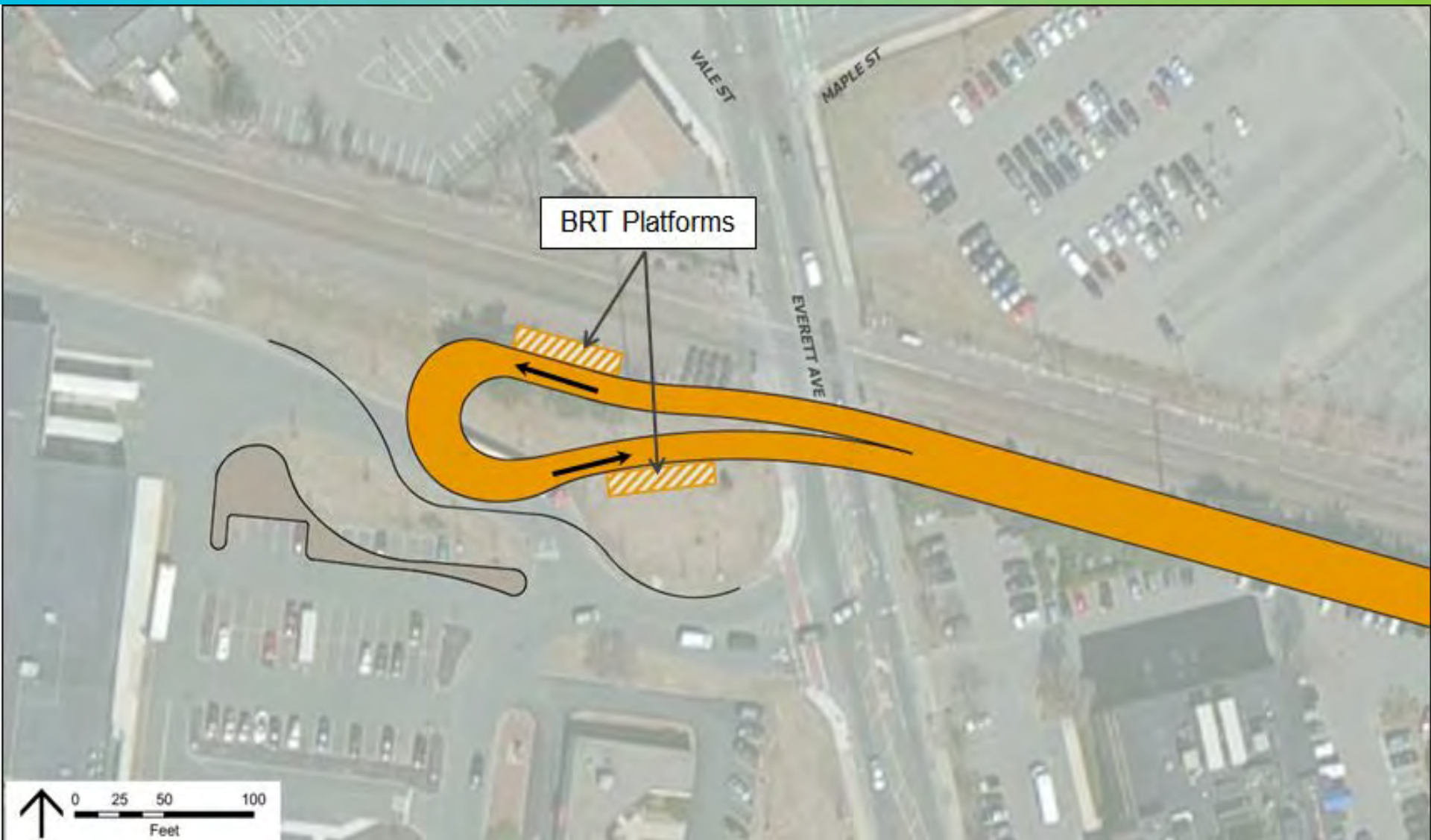
Station – Box District



Station – Downtown Chelsea



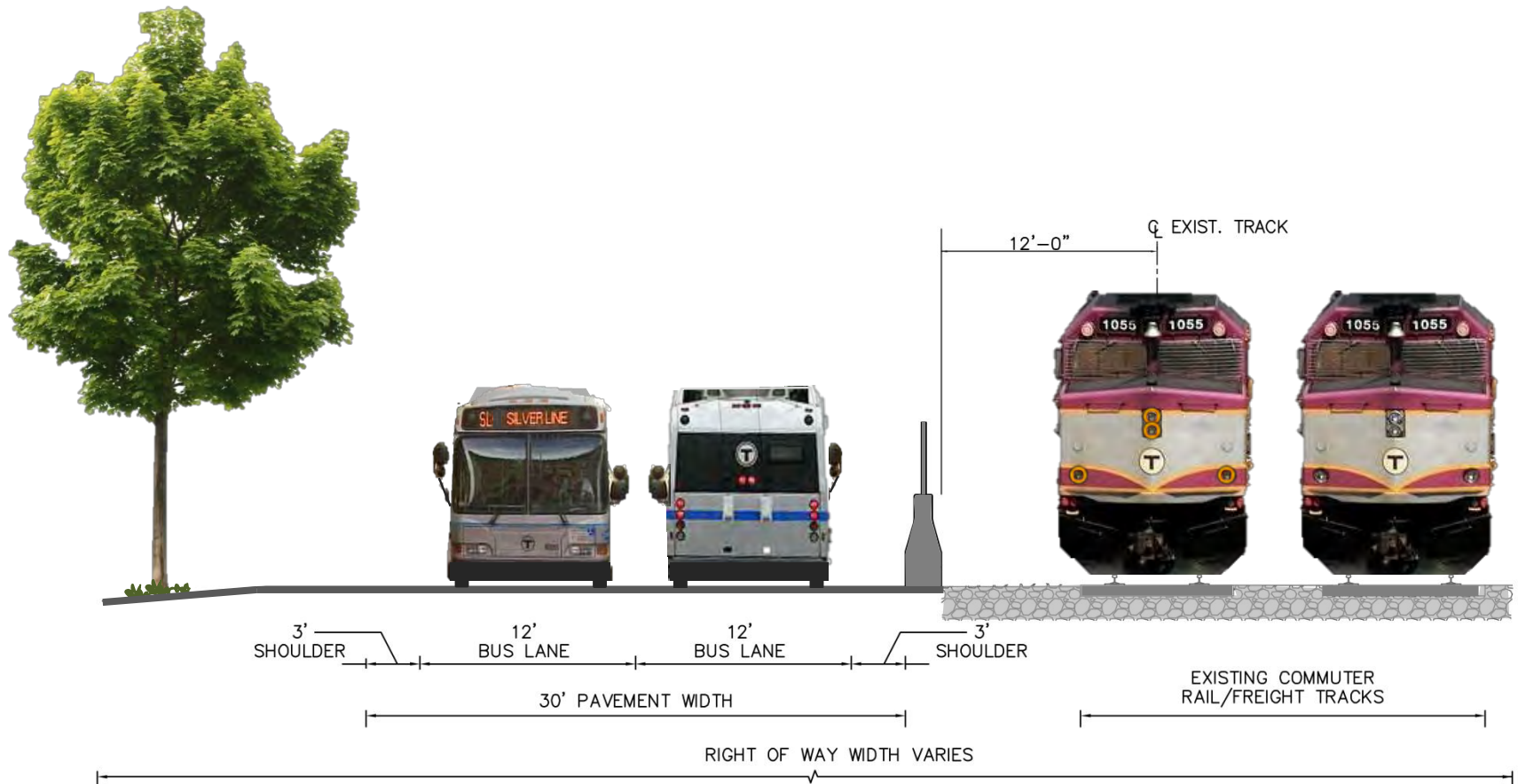
Station - Mystic Mall



Busway Section in Abandoned Rail Corridor



Busway Section Adjacent to Active RR



Station Example – Box District



Station Example – Box District



Station Example – Box District



Station Example – Box District



Hawthorn Street – Local Bus Corridor



- Improve reliability and travel time for local bus service
- 3 of MBTA Key Routes already serve this block
- 4,000 bus riders/day compared to 7,000 cars
- GreenDOT opportunity for shift to transit mode
- Relocation of Bellingham Square bus stop

Service Assumptions

- Frequency every 10-12 minutes each direction
- Service 5:00am to 1:30am seven days a week
- Rapid Transit Fares (\$2) with Charlie Card
- Off-board fare collection
- 60' articulated low emission vehicles

Busway Alternative - Travel Time

Preferred Alternative – <u>Busway</u> to Mystic Mall	
Example Trip Ends	Travel Time (minutes)
Downtown Chelsea to Airport Blue Line Station	8
Downtown Chelsea to World Trade Center*	15-19
Downtown Chelsea to South Station	23
Airport Blue Line Station to World Trade Center*	7-11
Airport Blue Line Station to South Station	15

* Range of travel times for Silver Line Gateway are for surface and underground WTC stations, respectively.

Performance Comparison – Seaport Access

Performance Measures	No Build			Silver Line Gateway
	111 Bus	Commuter Rail	Blue Line	Busway
<i>Downtown Chelsea to World Trade Center, Boston</i>				
Travel Time	39 min	36 min	37 min	15-19 min
Transfers	3	1	2	0
Reliability	Low	High	Medium	High
<i>Airport Blue Line Station to World Trade Center, Boston</i>				
Travel Time	NA	NA	20-26 min	7-11 min
Transfers	NA	NA	1	0
Reliability	NA	NA	High	High

Notes:

No-Build travel times are based on MBTA Trip Planner tool.

Range of travel times for Silver Line Gateway are for surface and underground WTC stations, respectively.

Busway Alternative - Ridership

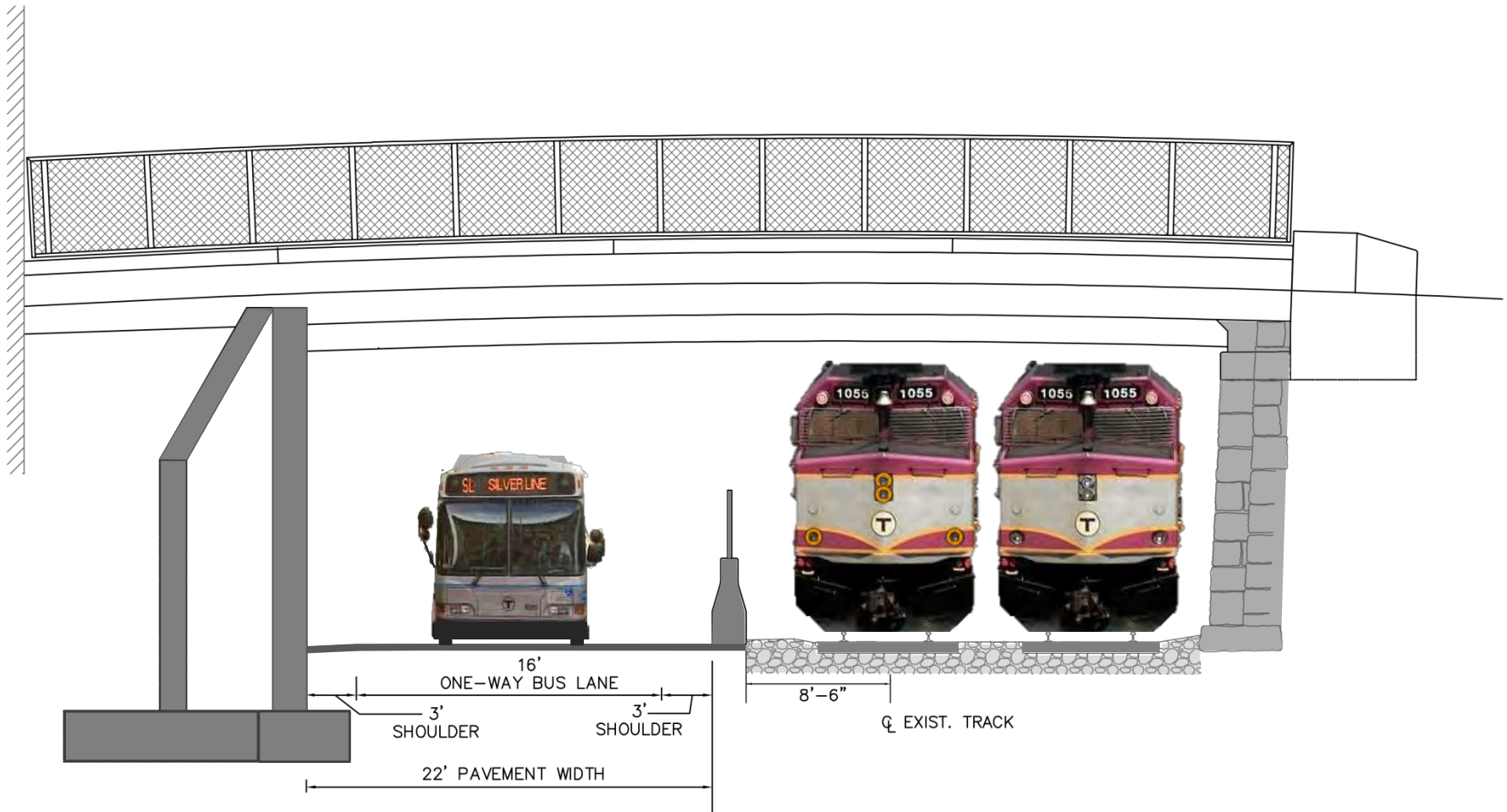
- CTPS Travel Demand Forecasting Results – Year 2035
- Results as compared to No-Build Alternative

Alternative	SLG Total Daily Ridership	New Transit Trips	Change in Ridership compared to No-Build		
			Blue Line	Route 111	Combined Routes 116/117
Busway to Mystic Mall	8,730	2,500	190	-2,230	-1,950

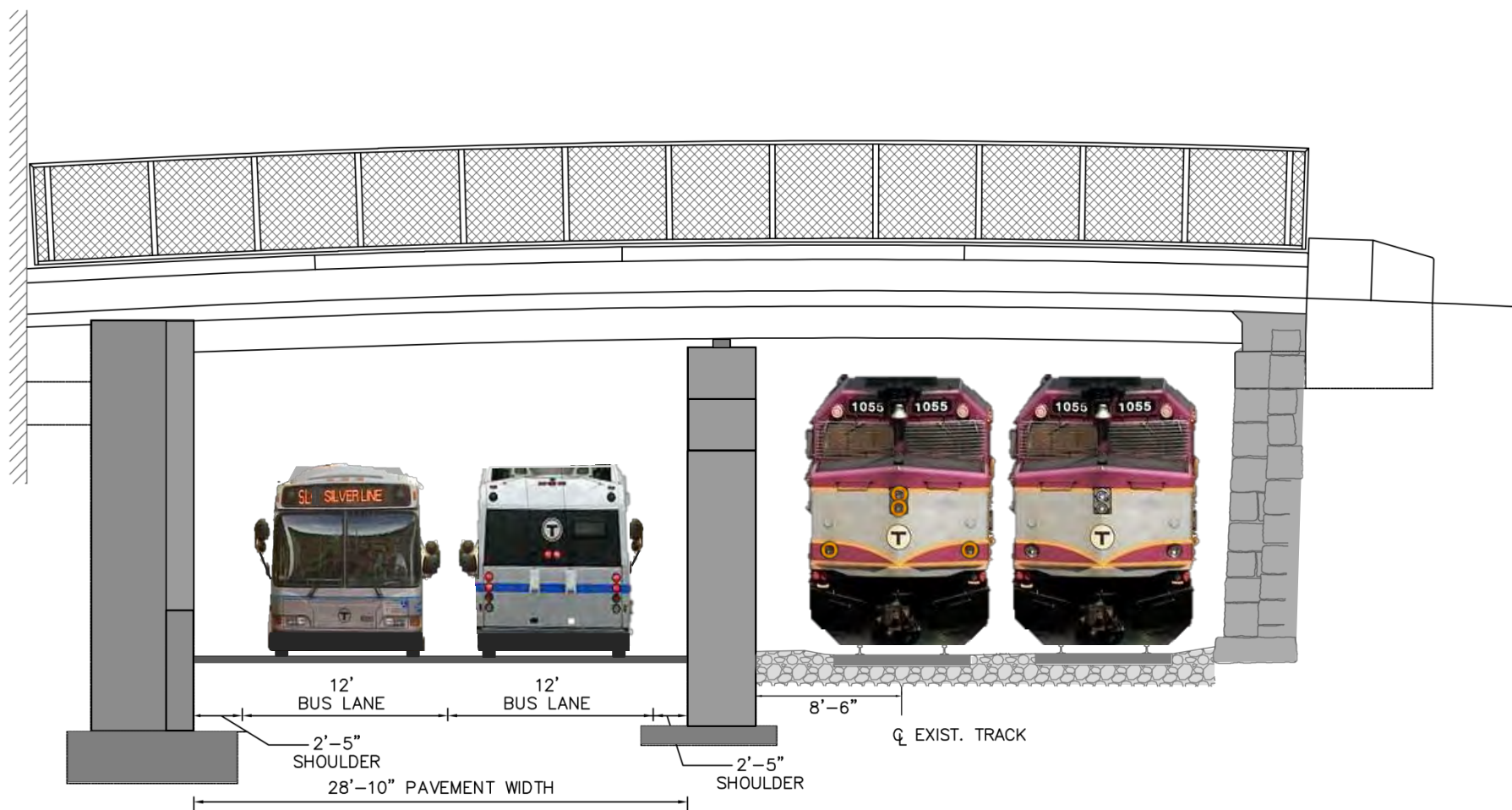
Washington Avenue Bridge Issues

- Rated as functionally obsolete
- Bridge scheduled for replacement in 2014
- Prior design concept only provided room for one-lane busway
- Silver Line Gateway has resulted in new design concept for the bridge

Busway Section at Washington Avenue Bridge – One Lane



Busway Section at Washington Avenue Bridge – Two Lanes



Chelsea Commuter Rail Station



- MassDOT's Commitment:
 - Modern station
 - Accessible to all users
 - Convenient connections with Silver Line Gateway



Chelsea Commuter Rail Station - Issues

- Accessibility Regulations and MBTA Design Standards
 - High level platforms for level boarding
 - Accessible boarding from all cars (800' long platform)
 - Platform with minimum depth of 7'6"
- Significant physical constraints to meeting these regulations and standards at Chelsea Commuter Rail Station

Chelsea Commuter Rail Station - Constraints



- North Abutment of Washington Avenue Bridge
- At-Grade crossing of Sixth/Arlington Streets



Grade Crossings - Commuter Rail Corridor



Next Steps and Schedule

- Complete the Alternatives Analysis (AA) Phase
- Complete Final AA Report and post to Project Website
- File Expanded ENF with MEPA
- Commence critical early design actions



THANK YOU

QUESTIONS & ANSWERS

Contact Scott Hamwey, Project Manager,
(857) 368-8857 or Scott.Hamwey@state.ma.us
www.massdot.state.ma.us/silverlinegateway